



# INVISIBLE THREAT

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The longtime president of Microsoft Canada is now our country's leading advocate for wireless radiation safety. Vitality invited high tech leader Frank Clegg, now CEO of the new non-profit organization, Canadians for Safe Technology (C4ST), to update our readers on what Canada is (or is not) doing to protect your health, and what you can do in this election year to protect yourself and your children. Here is a report on his research and conclusions.

It has been three years since the World Health Organization shocked the medical community by warning that exposure to microwave radiation from wireless devices might increase our cancer risk. If the same elite cancer specialists were to meet again today, the warning would be upgraded from a "possible carcinogen" to a "probable carcinogen." That is according to Professor Emeritus Anthony Miller, of the University of Toronto, who was speaking recently to Toronto's Public Works and Infrastructure Committee. (1)

Since 2011, governments around the world have alerted their populations to approach wireless devices with caution. In Belgium, it will soon be illegal to sell or market "kiddie-phones," mobile phones that are specially designed for children. (2)

In France, the government "recommends limiting the population's exposure to radiofrequencies – in particular from mobile phones – especially for children and intensive users." (3)

In India, both the State of Rajasthan and the City of Mumbai have passed laws prohibiting the placement of cellular antennae on the roofs of hospitals and schools and in playgrounds because they are "hazardous to life." (4)

Lawmakers across our globe are developing safety rules. Similar to the global trend in laws around seat belts, lawn-pesticides, second hand smoke and tanning beds, these laws are designed to protect the public from emerging technologies that eventually reveal emerging evidence of potential harm. Many people are unaware that wireless devices use microwaves, the same as your microwave oven. So your cordless phone, Wi-Fi, smart meter and the cell tower outside your window are effectively functioning as low-level, constantly-emitting, microwave transmitters.

In Canada, various levels of government are largely ignoring the warning from the W.H.O. and are instead hiding behind "Safety Code 6," (5) an archaic federal guideline that is allowing Canada's globally envied health care system to ignore our biggest modern health threat.

## The Link Between Wireless Radiation and Illness

Since I helped found Canadians For Safe Technology ([www.C4ST.org](http://www.C4ST.org)), I have personally met too many people who are suffering from over-exposure to wireless radiation. Cancer isn't the only risk.

About 10 years ago Bill Townsend, a former radio talk show host who now works at Humber College, was the father of a sick family. His very young son had been in surgery for his tonsils, and his even younger son had been diagnosed with adenoid swelling that was resulting in a lack of sleep. His wife had chronic skin rashes that had progressed to her face and also suffered dizziness. When his wife's doctor found she had the same adenoid swelling as their son, he scheduled both Bill's son and his wife for surgery on the same day.

Bill became suspicious when he started to get sinus swelling himself. So he conducted an internet search and found information linking Wi-Fi to sudden onset chronic health problems including heart irregularity, headaches, nausea, poor sleep, as well as skin rashes and sinus swelling.

Bill then realized there was a direct link between his family's health decline and the installation of a Wi-Fi router in his house. He made a simple decision to turn off the Wi-Fi, and instead hardwire all computers in his home. His wife and son's symptoms reversed so quickly that on the day before surgery their doctor gave them both a clean bill of health and cancelled both operations. Bill's own symptoms also quickly disappeared.

In every story I hear, the hidden cost of so much wireless radiation in our lives is being borne by our provincial healthcare system. The provinces are blindly following the federal government's outdated Safety Code 6 – even though Safety Code 6 is only a guideline for federal buildings. No one knows how many people are sick or will become sick from this radiation, but scientists estimate about 3% of people have an immediate reaction. That means about one million Canadians. Many others – about 20% of people – will develop symptoms over time, like Bill Townsend did. These people have what Doctors call electrosensitivity or ES.

## Increasing Rates of Electrosensitivity

Electrosensitivity is not like an allergy you are born with; it is an illness that builds up over increased time and radiation exposure. Just as we cannot yet explain why some individuals will die from second-hand smoke and others can live a long life smoking 2 packs a day, we cannot explain why some individuals react to wireless radiation. But with more and more cell towers and smart meters crowding into our living spaces, with Wi-Fi in buses, schools, trains, offices and hotels, people who are sensitive now struggle to work, travel and support their families.

Women's College Hospital in Toronto has an environmental health clinic that has seen its waiting list balloon to over 6 months for patients struggling with electrosensitivity.

Health Canada is dangerously behind other countries in recognizing electrosensitivity. It is disturbing to note that Health Canada historically did recognize that some people get sick from microwave radiation. But in the last "update" of the Safety Code in 2009, the only significant change was to delete the single sentence that read:

"Certain members of the general public may be more susceptible to harm from RF and microwave exposure."

This acknowledgement that some people are susceptible to harm from wireless radiation had been part of the safety code for more than a decade. It vanished about the same time Wi-Fi was rolled out into all schools and offices. (6)

That is in stark contrast with Sweden, where electrosensitivity is an officially recognized impairment. Some hospitals have built special rooms with very low wireless radiation so that people who are sensitive can get medical care. (7)

In 2012, the Austrian Medical Association also adopted guidelines for the diagnosis and treatment of illness caused by wireless radiation. (8) Austria's checklist for physicians lists the following symptoms: sleep problems, fatigue, exhaustion, lack of energy, restlessness, heart palpitations, blood pressure problems, muscle and joint pain, headaches, depression, difficulty concentrating, forgetfulness, anxiety, urinary urgency, anomia (difficulty finding words), dizziness, tinnitus and sensations of pressure in the head and the ears, tightness in chest, hyperactivity, irritability, noise sensitivity, burning sensation in the eyes and skin conditions.

I encourage everyone who is reading this with unexplained chronic health problems – including disturbed sleep – to turn off every wireless device in their home for a week. Write down what happens. Here's what to do:

## The Tech Exec's 5-Step Guide to Wireless Safety

### 1. CELL PHONES:

- a) Keep cell phones away from your head (use the speaker or airtube earbuds; not bluetooth) and out of your pocket, bras, or clothing.
- b) Don't sleep with an active cell phone near you. Use airplane mode only. It keeps the phone functions on, but blocks incoming/outgoing calls and text.

c) Children should not be near a connected cell phone or tablet device. Cell phones and tablets should not be used as toys.

d) Forward your phone to your landline when at home.

**2. CORDLESS PHONES:** Remove all cordless phones. If you must have them, keep them away from high use areas and bedrooms and put them on a timer or turn them off every night. The base-station is the heaviest emitter of radiation, more than the hand-held phone.

**3. WI-FI:** Remove the Wi-Fi in your home. If you cannot remove it, turn it off when not in use, minimally put it on a timer or turn it off every night. Make sure it is not where someone is exposed all day, such as a bedroom or study.

**4. BABY MONITORS:** Never place a wireless baby monitor (video or audio) by your child's bed. Use a wired monitor. Mothers, do not carry the monitor near your body.

**5. SMART METERS:** If possible, opt out of any smart meter installations for hydro or water. If not possible, try to have it placed away from bedrooms or other high use area, or consider the use of a protective screen.

It's worth noting that even the manufacturers won't declare their products "SAFE." The presidents of Bell, Rogers, Telus, or any cell phone maker will not declare publicly that their products are safe. In the U.S., the spokesman for the wireless industry association, Dane Snowden, is on record as testifying to the State Legislature of Vermont: "Industry has not said once – not once – that cell phones are safe. The federal government ...has said it is safe."

## Lax Federal Guideline Is a Danger to Public Health

This is perhaps the most critical point in the discussion. Our lax federal guideline needs to be rigorously updated. Health Canada's Safety Code 6 which governs the safety of cell phones, cell towers, Wi-Fi, smart meters and microwave ovens has not been significantly updated since the 1970s, long before Wi-Fi was invented or cell phones were sold.

But even manufacturers discreetly warn of possible health problems – in their fine print. This warning comes with the Apple iPad2: (9)

"You can further limit your exposure by limiting the amount of time using iPad in wireless mode, since time is a factor in how much exposure a person receives, and by placing more distance between your body and iPad since exposure level drops off dramatically with distance."

The packaging with iPhone5 states: "Carry iPhone at least 10 mm away from your body to ensure exposure levels remain at, or below, the as-tested levels."

(To find these warnings, you have to hunt for them. Go to Settings – General – About – Legal – RF Exposure)

Blackberry warns users to keep their phones an inch away from any part of their body whenever it's turned on, "including the abdomen of pregnant women and the lower abdomen of teenagers." (10)

For men, keeping your cell phone in a trouser pocket in talk mode may impair fertility. (11) Putting a Wi-Fi-enabled computer on your lap has also been shown to alter sperm motility.

## Wi-Fi Linked to ADHD, Learning Disorders

A recent study demonstrated that pregnant women should be careful about their use of cell phones. Dr. Hugh S. Taylor, chief of reproductive endocrinology and infertility for Yale Medical Group says, "We have shown that behavioral problems in mice that resemble ADHD are caused by cell phone exposure in the womb. The rise in behavioral disorders in human children may be in part due to fetal cellular telephone irradiation exposure." (12)

Children are especially vulnerable since their skulls are thinner and certain tissues of a child's head, including the bone marrow and the eye, absorb significantly more energy than those in an adult head. (13) A highly regarded study from 2011 showed that radiation from a cell phone penetrated 10% of an adult head, whereas it penetrated the skull of a five year old 70%. (14)



I am discouraged to see School Boards such as Peel encourage students to Bring Your Own Device (BYOD). The campaign was designed by the tech industry and sold to school Boards as part of their international sales campaign "21'st Century Learning." (15)

In fact, a prestigious group of medical doctors who specialize in treating disease caused by toxins in the environment wrote to the Peel Board. The letter from the American Academy of Environmental Medicine (AAEM) to the director of the Peel District school board strongly advised the Board to turn off the Wi-Fi, and instead wire computers into ethernet cables in the classroom, in order to avoid "a widespread public health hazard that the medical system is not yet prepared to address." (16)

Science suggests that exposure to constant wireless radiation impairs learning.

One of the most succinct letters I have read on the subject was written by Dr. Martha Herbert of the Harvard School of Medicine. As one of the world's leading autism experts, she wrote to the Los Angeles School Board discouraging the installation of Wi-Fi, explaining that wireless radiation "from Wi-Fi and cell towers can exert a disorganizing effect on the ability to learn and remember, and can also be destabilizing to immune and metabolic function. This will make it harder for some children to learn, particularly those who are already having problems in the first place." (17)

However, as with pesticides, when the federal government lags behind, there are local initiatives that can make a difference. With lawn pesticides, the movement began in 1991 when a small town council in Hudson, Quebec, voted to outlaw the use of pesticides for "cosmetic control." Today there are bans in more than 100 municipalities (including Toronto) and two provinces.

## Local Initiatives to Protect the Public from Wi-Fi Radiation

With wireless radiation there are also some notable local initiatives:

The Saanich District School Board on Vancouver Island has banned Wi-Fi in elementary schools due to the uncertainty around children's health. Also in B.C., the Kootenay Lakes school district voted to maintain one school without Wi-Fi in order to provide a safe haven for students who are obviously sensitive to the microwave radiation.

Last fall in Guelph, the City Council voted to request that Industry Canada stop all construction of new cell towers until Safety Code 6 is updated to reflect all health risks from overexposure to microwaves. (18) Similar requests from Thorold and Oakville earlier in the year have been ignored.

Last December, the City of Toronto voted to maintain its "Prudent Avoidance" policy recommending people and civic bodies keep radiation levels from cell towers 100 times safer than the federal Safety Code 6 minimums.

## Take Action

Here's what you can do to make Canada's hi-tech landscape healthier:

Help us Change Safety Code 6.

Health Canada has contracted the Royal Society of Canada (as it does every few years) to "update" Safety Code 6. The current panel is very conflicted. The Chair, Daniel Krewski, has already resigned after the Canadian Medical Association Journal published an exposé showing conflict of interest. (19) Two other scientists have resigned. There remain four of eight members with conflicts that should exclude them. Details are on our website [www.C4st.org](http://www.C4st.org). (20)

There will be no changes unless people speak out. Please consider our 3-step plan:

1) **Visit** [www.c4st.org](http://www.c4st.org), [www.facebook.com/c4st.org](http://www.facebook.com/c4st.org) and Join our non-profit group. There is power in numbers. From our site you can send an email to the Royal Society President, Dr. Grise, expressing concern that the Expert Panel is conflicted. <http://www.c4st.org/RSCpredetermined>. Email Health Canada voicing your disappointment that Safety Code 6 is outdated and does not protect us against the biological harm from wireless radiation. [www.c4st.org/healthcanada](http://www.c4st.org/healthcanada).

2) **Contact your City Council:** This is an election year. Vocally and repeatedly demand a safer wireless policy from any candidate you would like to endorse. If they refuse, find a candidate who will step up.

3) **Contact your School Trustees:** It is an election year for school trustees also. Ask and re-ask each candidate how they intend to protect children from wireless radiation at school. Suggest hardwiring most computers at school; suggest a school in each district that is Wi-Fi free, or Wi-Fi free zones in each school. Support trustees who will discourage BYOD schemes.

We are C4ST, Canadians for Safe Technology, not No Technology and we are convinced that there is nothing less than the future of our children at stake. The tide is beginning to turn and in numbers, our voices will be heard.

## References

- C4ST, Canadians for Safe Technology, PO Box 33, Maple Grove Village Postal Outlet, Oakville, ON L6J 7P5 Telephone: 1-866-408-4350.

- To send your protest letters:

- Dr. Yolande Grise, President, Royal Society of Canada, Walter House, 282 Somerset West, Ottawa, ON, K2P 0J6

- The Honourable Rona Ambrose, P.C., M.P. Health Canada, Brooke Claxton Building, Tunney's Pasture, Ottawa, Ontario K1A 0K9 (postage-free)

## FOOTNOTES:

(1) [https://www.youtube.com/watch?feature=player\\_embedded&v=wARxnaxrRKk](https://www.youtube.com/watch?feature=player_embedded&v=wARxnaxrRKk)

(2) <http://newsvoice.se/2013/10/18/belgium-bans-mobile-phones-for-children/>

(3) [http://www.anses.fr/sites/default/files/documents/PRES2013CPA18EN\\_0.pdf](http://www.anses.fr/sites/default/files/documents/PRES2013CPA18EN_0.pdf)

(4) <http://www.deccanherald.com/content/294813/no-mobile-towers-near-schools.html>

(5) [http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio\\_guide-lignes\\_direct-eng.php](http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/radio_guide-lignes_direct-eng.php)

(6) C4ST did a thorough investigation through Access to Information to get all records on the last update of Safety Code 6 in 2009. There are no emails or records of any kind about removing this sentence, despite this being one of the only changes made. A further complaint to the Information Commissioner's office confirmed there were no records to explain why this line vanished.

Below is a copy of the letter from the ATI investigator.

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Sept 10, 2012

Hello XXXXXXX,

I am writing in regards to your complaint filed with the Office of the Information Commissioner concerning your request A-2011-00827:

("Previously disclosed records under A-2011-00503 that read as follows:)

Request all submissions, emails, printed and electronic correspondence sent or received by Health Canada concerning the 2009 update of Safety Code 6 (Limits of Human Exposure to Radio-frequency Electromagnetic Energy in the Frequency Range from 3 kHz to 300 GHz)"

Please note that our office of primary interest, Healthy Environments and Consumer Safety Branch- Environmental and Radiation Health Sciences

Directorate (HECSB- ERHSD) at Health Canada has confirmed that there are no e-mails or written correspondence on why the sentence "Certain members of the general public may be more susceptible to harm from microwave exposure" was removed.

We trust this information clarifies the matter.

Sincerely,

N. Muminovic

Access to Information and Privacy Health Canada

Public Health Agency of Canada

Holland Cross, Tower B, 1600 Scott Street, 7th Floor

Ottawa, ON K1A 0K9

(7) <http://informahealthcare.com/doi/abs/10.1080/15368370601044150?journalCode=ebm>

(8) <http://freiburger-appell-2012.info/media/EMF%20Guideline%20OAK-AG%20%202012%2003%2003.pdf>.

(9) <http://www.c4st.org/images/documents/iPad-2-Manual-RF-Warning.pdf>

(10) <http://www.c4st.org/images/documents/Blackberry-Manual-RF-Warning.pdf>

(11) <http://www.ncbi.nlm.nih.gov/pubmed/18804757>

(12) <http://www.yalemedicalgroup.org/cellphonestudy2012>

(13) <http://www.ncbi.nlm.nih.gov/pubmed/21999884>

(14) [http://electromagnetichealth.org/wp-content/uploads/2011/10/EBM\\_Final\\_v4\\_10-13-11-1.pdf](http://electromagnetichealth.org/wp-content/uploads/2011/10/EBM_Final_v4_10-13-11-1.pdf)

(15) Footnote 21st Century learner. - The 21st Century learner campaign began in 2002 with a group of technology companies dreaming up how to sell to schools. It was soon disguised as an "education" campaign. [This is the Cisco sales document](#): "Equipping Every Learner for the 21st Century." The bottom line is the Wi-Fi and wireless devices are needed in every class.

(16) [http://www.c4st.org/images/documents/cell-tower-situations/Peel-DSB/American\\_Academy\\_of\\_Environmental\\_Medicine\\_Letter\\_to\\_PDSB.pdf](http://www.c4st.org/images/documents/cell-tower-situations/Peel-DSB/American_Academy_of_Environmental_Medicine_Letter_to_PDSB.pdf)

(17) <http://www.c4st.org/news/item/scientific-research/harvard-doctor-warns-about-wi-fi-in-schools.html>

(18) [http://guelph.ca/wp-content/uploads/council\\_minutes\\_121613.pdf](http://guelph.ca/wp-content/uploads/council_minutes_121613.pdf)

(19) Daniel Krewski of the McLaughlin Institute for Public Health (which is funded in part and was founded by the Canadian Wireless Industry Association) resigned after the CMAJ published an expose showing that while reviewing Canada's Safety Code he had not mentioned the fact that he had also taken a contract for \$126,000 to "convince an unwilling Canadian public" that cell towers are safe <http://www.cmaj.ca/content/early/2013/06/24/cmaj.109-4523.full.pdf+html>

(20) <http://www.c4st.org/safety-code-6-review#sthash.fnlusKK6.dpuf>